kako

kako 928

kako 928B

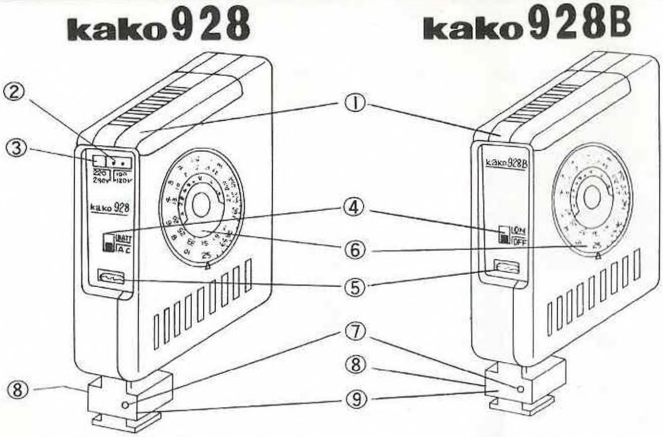
INSTRUCTION BOOK

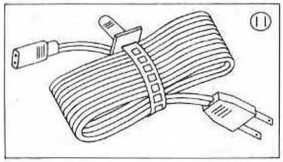
TECHNICAL DATA

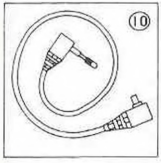
Guide Number	40 (ASA 25 in feet) 72 (ASA 80 in feet) 17 (DIN 18 in meters)
Coverage Angle	50 degrees horizontal; 65 degrees vertical (when mounted in vertical posture)
Flash Duration	1/1,700 sec.
Recycling Time	9 sec. on alkaline batteries 9 sec. on manganese batteries 6 sec. on AC ※
Battery Life	Up to 100 flashes (alkaline batteries) Up to 45 flashes (manganese batteries)
Power Source	Four 1.5V AA size alkaline or manganese batteries. AC mains (adaptable to both 100V and 220V line voltage ranges) ※
Dimensions	97 × 84 × 35.5 mm (4 × 3-1/4 × 1-1/4 in.)
Weight	200 grams (7.1 oz)
Standard - Accessories	PC cord; AC cord ※

※**kako 928** only.

DESCRIPTION OF PARTS





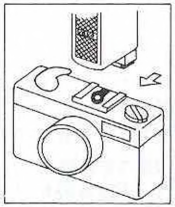


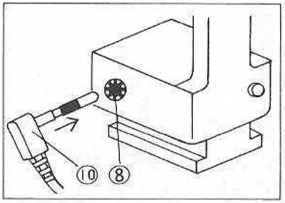
① Battery Compartment Lid
② AC Socket †
③ Voltage Selector Plate†
④ Power Switch*
⑤ Neon Ready Lamp
⑥ Exposure Computer Dial
⑦ Circuit Tester / Open Flash Button
⑧ PC Cord Socket
⑨ Hot-Shoe Bracket
⑩ PC Cord
⑪ AC Cord†

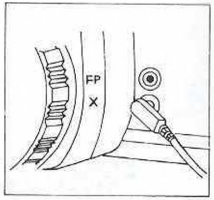
※Power Switch of **kako 928** doubles as AC/Battery Selector.
† Exclusive **kako 928** features.

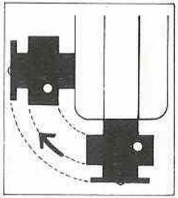
OW TO MOUNT

1. Cameras with hot-shoe provision
   Side your unit all the way into the hot-shoe of your camera. When thus mounted, proper electrical contact will be made. In this case, there is no need for using the PC Cord ⑩.
2. Cameras without hot-shoe provision
   (1) Plug one end of the PC Cord ⑩ all the way into the PC Cord Socket ⑧ of your unit.
   (2) Clip your unit on the accessory shoe of your camera.
   (3) Connect the other end of the PC Cord to the flash contact of your camera. Always see to it that the X contact is used. If your camera features a sync selector, make sure it is set at "X".
   NOTE : When connected to the FP or M contact, your unit will not synchronize with the shutter operation.
3. Adjusting the mounting posture
   To mount your unit in horizontal posture, give the Hot-Shoe Bracket ⑨ a turn in the direction of the arrow (See illustration).

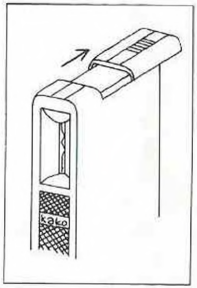








BATTERY OPERATION



(1) Open the Battery Compartment Lid ① by sliding it in tie direction of the arrow (See illustration).
(2) Install four 1.5V AA size batteries by matching their polarity with the diagram inside the compartment.
(3) Slide the Power Switch ④ to "ON"("BATT" setting in case of **kako 928**). You will then hear a faint whine and the Neon Ready Lamp ⑤ will come on within a matter of a few seconds.
(4) Adjust the shutter speed and lens aperture of your camera by referring to Pages 6 and 7, and trip the shutter. To prevent under-exposure, it is advisable to wait 5 to 6 sec. after the Neon Ready Lamp ⑤ comes on, before tripping the shutter.
(5) When the flash is fired, the Neon Ready Lamp will go off; however, it will turn on again when left in the same state.

NOTE :

1. Make it a rule to reset the Power Switch ④ to "OFF" ('AC' setting in case of **kako 928**) after using your unit. At this setting, the battery power will be switched off, thus preventing excessive power drain.
2. When the battery power drains below the required level, the Neon Ready Lamp ⑤ will require an excessively long time to come on. If it takes more than 30 seconds, replace all four batteries with new ones.
3. This will conserve battery power and will give you the maximum flashes per replacement. Make sure the batteries are removed from your unit when storing it away for any great length of time. Leakage of chemicals from the batteries during storage may render your unit inoperative.

AC OPERATION※

(1) Adjust the Power Switch ④ to "AC" setting.
(2) Connect the AC Cord ⑪ to the AC Socket ② of your unit and plug the other end into a wall outlet.
(3) When thus connected, the Neon Ready Lamp ⑤ will come on within a matter of a few seconds.

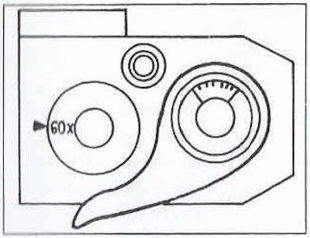
NOTE:

1. In case your unit is left unused over a great length of time, the Neon Ready Lamp may require quite a long time to come on. This does not, however, signify a malfunction. Leave your unit connected to a wall outlet until the lamp turns on.
2. To maintain your unit in top shape, make it a rule to fire the flash once or twice a month on AC. This will prevent degeneration of the capacitor during storage.
3. When using your unit on AC in an area where the line voltage is 220V, always see to it that the Voltage Selector Plate ③ is pushed all the way with the tip of a ball-point pen or similar object to show the required indication.
   Do not under any circumstance operate your unit on 220V when the Voltage Selector Plate shows an indication of 100V.
4. When your unit is left unused over a great length of time, it is advisable to fire a couple of flashes on AC before operating it on battery power.

※**kako 928** only.

SHUTTER SPEED SETTING

1. Leaf-type Shutter Cameras
   With this type of cameras, any shutter speed setting will provide perfect synchronization.
   In case of EE cameras, however, it is advisable to refer to the instruction booklet supplied with your camera, because the flash synchronization speed may differ with each model and make.
2. Focal plane shutter cameras
   This type of cameras usually features an "X" or color-coded setting on the shutter speed control dial indicating the highest speed at which the shutter will synchronize with the electronic flash. Use this or slower speed setting. Usually, the maximum speed for flash synchronization is 1/60 sec. but some models permit use of higher speeds; therefore, it is advisable to refer to the instruction booklet supplied with your camera.

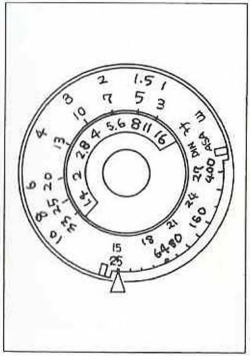


APERTURE SETTING

1. Normal method of determining the correct aperture
   (1) Turn the Exposure Computer Dial ⑥ and align the figure corresponding to the ASA (or DIN) speed rating of the film in use with the index.
   (2) Locate the figure corresponding to the flash-to-subject distance on the outer scale and read off the figure on the inner scale in alignment. This is the correct aperture setting for the subject range and therefore your camera's aperture control must be set accordingly. Aside from the foregoing, the correct aperture can also be calculated on the basis of the following formula:

   GN (Guide Number) = F (Aperture) × D (Subject Distance)

   Because your unit features a guide number of 40 (ASA 25 in feet), the correct aperture when shooting a subject 10 feet away will be 40 ÷ 10 = 4(f/4).



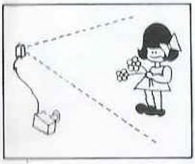
2. Cameras with flashmatic control
   With this type of cameras, correct aperture setting is obtained automatically when focus is secured on the subject. The only preliminary step consists of setting the guide number. For details refer to the instruction booklet which comes with your camera.

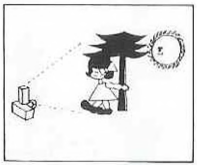
NOTE: When shooting in spacy room devoid of effective reflecting surfaces or when photographing subjects outdoors at night, open the lens aperture by one or two stops larger than the setting indicated on the Exposure Computer Dial.

Avoid shooting flash shots of subjects directly in front of windows, mirror or other highly reflective surfaces.

TIPS FOR BETTER FLASH PHOTOGRAPHY

1. Off-Camera Flash
   To avoid "flat" pictures usually associated with flash shots and to obtain an attractive three-dimensional effect in portraiture, resort of off-camera flash. Set your flash unit so that your subject will receive the light from an oblique angle and calculate the correct aperture by measuring the distance from your subject to the flash unit and NOT to your camera.
2. Sun Sync (Daylight Synchro)
   Better overall effect will be obtain if you use your flash as "fill" light when shooting backlit subjects or when photographing subjects in shade. In case of leaf-type shutter cameras, set the lens aperture on the basis of the guide number of the flash unit in use and adjust the shutter speed to a setting that warrants correct exposure in combination with the preset aperture setting.
   With focal plane shutter cameras, have the shutter speed set at "X" or color-coded setting indicating the maximum speed for flash synchronization and adjust the lens aperture according to the method given in the foregoing. Normally, the precise shutter speed/lens aperture combination cannot be obtained unless the flash unit is set away from the camera.

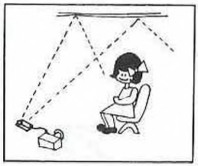




3. Bounce Flash

To obtain a soft lighting effect devoid of the harsh shadows usually associated with flash exposures, bounce the flash on a ceiling or wall. When taking color pictures, use a white ceiling or wall to bounce the flash.

Although it depends on the distance of the wall or ceiling, the normal procedure calls for opening the lens aperture about two stops wider than that obtained by referring to the exposure computer dial.



The flash will be triggered independently of the shutter operation when the Circuit Tester/ Open Flash Button ⑦ is pressed.

When using the PC cord, the flash can also be fired by shortcircuiting the plug with the tip of a ball-point pen or similar object.

If the unit fires when the Circuit Tester ⑦ is depressed but fails to go off in synchronization with the shutter operation, check whether the PC Cord is plugged in properly. If the cord is found to be in order, malfunction of the flash synchronization system of the camera is indicated, in which case send your camera out to the nearest service station.

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